GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:3991
ANSWERED ON:10.08.2016
Life Sciences Education/Research/ Entrepreneurship
Nagar Shri Rodmal

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the Government is encouraging the life sciences education, research and entrepreneurship in the country;

(b) if so, the details thereof;

(c) whether the draft policy has been finalised in this regard; and

(d) if so, the details thereof?

Answer

MINISTER OF STATE FOR SCIENCE & TECHNOLOGY AND EARTH SCIENCES
(Y. S. CHOWDARY)
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(???. ??. ?????)
(a) & (b) Yes,Madam. Ministry of Science and Technology, Government of India is encouraging the life science and biotechnology education, research and entrepreneurship in the country. Department of Biotechnology (DBT)has implemented an integrated human resource development programme in the field of biotechnology by providing support to postgraduate teaching programme viz.M.Sc./M.Tech. in 71 universitiesin the country, colleges for holistic development of science education at undergraduate level under star college scheme,industrial training for B.Tech./M.Sc./M.Tech. biotech students and finishing school for bridging skill gaps and enhancing employment prospects, re-training of existing faculty and scientists in advanced areas for upgrading their skills by conducting short term training courses,fellowships for doctoral and post - doctoral research. DBT has also instituted Ramalingaswami Re-entry fellowships for encouraging Indian scientists working in overseas laboratories to return to the country. DBThas launched DBT-BUILDER programme (DBT-Boost to University Inter-disciplinary Departments of Life Sciences for Education and Research) for advanced education and research by upgradation/re-engineering/remodelling/ creation of life science departments in universities.The details of education programmes of Department of Biotechnology are enclosed at Annexure-A.

The Department of Science & Technology (DST) has supported major scholarship program: Innovation in Science Pursuit for Inspired Research (INSPIRE). The INSPIRE scheme offers 10,000 scholarships every year for undertaking Bachelor and Masters level education in natural and basic sciences including life sciences. DST is also supporting a major programme entitled "Fund for Improvement of S&T infrastructure in universities & higher educational institutions (FIST)" to rebuild the Science & Technology infrastructure in the country.

The Ministry of Science & Technology is providing extramural funding on competitive basis to teachers and scientists working in universities and national laboratories to carry out the basic and applied research in areas of life sciences and biotechnology. In 2015-16, around 300 Research &Development projects were sanctioned by Department of Biotechnology.

The National Science & Technology Entrepreneurship Development Board (NSTEDB), established in 1982 by the Government of India under the aegis of Department of Science & Technology, is an institutional mechanism to help promote knowledge driven and technology intensive enterprises. The major objective of NSTEDB to promote and develop high-end entrepreneurship for Science &Technology (S&T) manpower as well as self-employment by utilising S&T infrastructure and by using S&T methods, facilitate and conduct various informational services relating to promotion of entrepreneurship.

Department of Biotechnology has supported entrepreneurship training programmes for establishment of small and medium enterprises in North Eastern Region of country. DBT has also established Biotechnology Industry Research Assistance Council (BIRAC) as a Section 8 (not for profit) Public Sector Entity in 2012 with the mandate to build the biotechnology innovation ecosystem in the country. Since, its inception, BIRAC is providing funding to entrepreneurs, start-ups, small and medium enterprises (SME)and translational organisations. BIRAC has initiated several flagship programs such as Biotechnology Ignition Grant(BIG), Small Business Innovation Research Initiatives(SBIRI), Biotechnology Industry Partnership Program(BIPP) etc., for biotechnology innovation and to encourage entrepreneurship. Department of Biotechnology has also established the Biotech Parks and incubators to support start-ups and entrepreneurs for innovative product development in the country.

(c) & (d) Yes, Madam. Department of Biotechnology has released "The National Biotechnology Development Strategy-2015-2020" and has identified following sectors to accelerate the pace of growth of biotechnology at par with global requirements:

1). Human Resource Development: In addition to continuous improvement of current programmes, the strategy proposes to address the needs of institutes for facilitating training, education and research aspirations of students, faculty and other biotech professionals by specialized training programs, induction of new courses, faculty improvement programs and by attracting overseas scientists.

2). Building Knowledge Environment: Capacity for innovation and technology development in biotechnology rests largely on access to core facilities and instrumentation.

3). Research Opportunities: DBT is providing support for research activities in the areas of basic research, agriculture, environment, bio-energy human genome research, vaccines, infectious & chronic disease biology, stem cells & regenerative medicine, etc

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4). Nurturing Entrepreneurship-IP Landscaping, Technology Transfer, Incubators, Entrepreneurship, SME Support Systems: The Department is supporting creation of technology transfer platform, domain specific innovation accelerators and translational accelerators in key locations and nurture bio-entrepreneurship in collaboration with Biotechnology Industry Research Assistance Council (BIRAC).

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